

APPEAL  
of  
5N ASSOCIATES  
to the  
STATE OF NEW HAMPSHIRE  
WASTE MANAGEMENT COUNCIL  
DES # 198805019

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APR 06 2004

04- 10 WMC -

**Notice of Appeal from a Decision of the  
New Hampshire Department of Environmental Services**

NOW COMES 5N Associates, 40 Temple Street, Nashua, NH 03060, pursuant to RSA 21-O:9-V and RSA 21-O:14 and New Hampshire Code of Administrative Rules Env-WMC Part 203, and files this appeal of the final decision of the Waste Management Division of the Department of Environmental Services ("DES") regarding its Groundwater Management and Discharge Permit Number GWP – 198805019-H-001 ("Permit"). The Permit contains provisions that are arbitrary and capricious and contrary to law.

**Name and Address of Person Filing Appeal:**

5N Associates  
40 Temple Street  
Nashua, NH 03060

**Counsel for 5N Associates:**

Gregory H. Smith  
McLane, Graf, Raulerson & Middleton, P.A.  
15 North Main Street  
Concord, NH 03301-4945  
603-226-0400  
FAX 603-230-4448  
greg.smith@mclane.com

**The Decision Being Appealed**

The final decision is contained in Groundwater Management Permit Number GWP-198805019-H-001 and an accompanying letter written by or on behalf of DES and dated March 8, 2004. Both documents are attached as Exhibit A.

### **Statutory Basis for Appeal**

This appeal is brought under RSA 21-O:9,V and RSA 21-O:14.

### **Argument: The Law**

1. **The Department has issued a Permit that it has no lawful authority to issue.**

The law provides that DES may issue a groundwater management permit for a specific area, known as the groundwater management zone (Env-Wm 1403.12(b)), upon application of the owner or a legally responsible person in control of the site (RSA 485-C:4, VIII; Env-Wm 1403.02(m)). The law provides that DES may require, consistent with the application and pursuant to the permit, the applicant to undertake activities it proposed at the site including monitoring (Env-Wm 1403.12(b)).

Once the permit application is filed with DES, there is no provision in the law or regulations authorizing DES to alter the groundwater management zone (GMZ) described in the permit application. There is no provision in the law or regulations to require monitoring outside the GMZ. Yet that is what the Waste Management Bureau purported to do in this case.

Without legal authority in the statutes or rules, DES may not lawfully alter the GMZ delineated in the permit application. While the Legislature gave the Department the power to make rules covering groundwater management permits,

RSA 485-C:4,VIII, the Department's rules do not authorize the Department to alter unilaterally the zone or the work proposed in the application.

The Department did not follow its own rules in issuing the Permit.

**2. The Department unlawfully limited the legal rights of the permittee.**

This is a site with four potentially responsible parties (PRPs). It is arbitrary, capricious and unlawful to direct work that is clearly the responsibility of one or more parties to be done by one, 5N Associates.

5N Associates has not waived and does not waive any of its rights to contest liability for harm caused by others or to pursue divisibility of harm with such others who are responsible for contaminants in the area.

In the absence of clear liability and in a case where evidence exists of liability of others, 5N Associates has the right to dispute the need for additional hydrogeologic studies and/or remedial measures. The Permit as written does not recognize or protect this right. (Paragraph 8 of the Standard Permit Conditions). Thus the Permit does not comply with the law.

**3. The Department unlawfully requires a revised remedial plan.**

The Department erroneously requires a revised remedial action plan if certain conditions exist in the future. (See paragraph 10 of the Standard Permit Conditions).A revised remedial action plan cannot be required before a remediation strategy has been required or approved by DES. Until then, there is nothing to revise.

**4. The Permit is inconsistent with determinations made by the Waste Management Bureau and this it is arbitrary, capricious and unlawful.**

The Bureau has directed two of the three other parties to do work. One has not yet done it; the other has provided evidence of a release on its own property, making it a PRP.

### **Argument: The Facts**

#### **1. Background**

**1.1 5N Associates is the property owner that applied for the groundwater management permit.**

5N Associates has never conducted any activities at the property.

The manufacturing facility on 5N Associates' property is operated and controlled by Computer Optics.

**1.2 The groundwater management permit in dispute was issued by DES to 5N Associates to monitor the past discharge of CVOCs.**

The Permit was issued in the context of a release of TCE sometime prior to 1986, whose location and type (i.e. subsurface or surface) is not known, and which does not pose a public health threat.

**1.3 5N Associates voluntarily complied with all requests made by DES during the past 17 years to monitor and sample not only groundwater under its property, but under the neighboring properties owned by TriState and RdF. (See Exhibit B, attached, for layout of properties owned by 5N Associates, TriState and RdF).**

**1.4 5N Associates has installed at its sole and significant expense 27 (twenty-seven) groundwater monitoring wells since 1987, having fully cooperated with the Department.**

9 (nine) wells were installed in 1987, 4 (four) wells were installed in 1988, 5 (five) wells were installed in 1990, 5 (five) wells

were installed in 1999, 2 (two) wells were installed in 2000, and 2 (two) wells were installed in 2001. Of those 27 (twenty-seven) wells, 24 (twenty-four) are located on the 5N site, 2 (two) wells are located on the RdF site, and 2 wells are located on the Town of Hudson down gradient property.

5N Associates has collected and analyzed groundwater samples from all or some of these wells whenever requested to do so by DES, again at its sole and significant expense: October 1987, December 1987, November 1988, March 1990, April 1990, October 1998, July 1999, September/October 2000.

Including the surface water sampling points, those wells installed on the TriState and RdF properties by their respective property owners, and the wells installed by 5N Associates, there are a total of 46 (forty-six) sampling points. The current cost of a sampling round for those wells is approximately \$16,000.

5N Associates has voluntarily, and without a determination of responsibility, cooperated fully with the Department and has done everything the Department has asked it to do while repeatedly asking the Department to involve TriState and RdF in the process as potential sources of CVOC contamination.

**2. Facts about TriState and RdF that are known**

As of 2003 DES had evaluated extensive information about the property owned by 5N Associates and the activities of Computer Optics on that property, as well as the activities of TriState and of RdF on their respective properties.

- 2.1. TCE has been detected on TriState's property in the groundwater and in the facility septic tank. The sample location up gradient of this leach field shows non-detect. Methylene chloride has also been detected on the property, and has never been found on the upgradient Computer Optics site.**
- 2.2 DES had obtained, as of December 2003, clear evidence of an independent release on TriState's property**
- 2.3. RdF used TCE on its property and TCE is in some wells on its property.**
- 2.4. As of December 2003 DES has required additional investigation of the RdF property. RdF has not yet reported to DES with regard to the additional investigation requested by DES.**

DES asked RdF to perform work involving the former RdF site septic systems at RdF's buildings 2 and 3, to do additional work with respect to former and current leach fields, to provide a summary of all USTs, and to provide a complete description of all floor drains and sinks. RdF has not responded to this request made in December 2003.

**3. Responsibility for contamination has not been determined**

- 3.1. The Department is admittedly currently unable to make a final determination of the appropriate liability for monitoring contamination at the TriState and RdF sites.**

The Department's letter of December 12, 2003 from DES to 5N Associates' environmental consultant, HTE (Exhibit C attached),

embodies the Department's judgment that it is not now able to determine the extent of responsibility for monitoring of the TriState and RdF properties. Consequently it is arbitrary, capricious and unlawful to require 5N Associates to conduct this sampling on those two neighboring properties.

**4. The Department's Permit as written does not recognize the Department's current inability to determine who is responsible for the contamination.**

**4.1. The Department required 5N Associates to apply for a groundwater management permit and the Department specified that the groundwater management zone is limited to the property owned by 5N Associates.**

The Department's letter of December 12, 2003 from DES to 5N Associates' environmental consultant, HTE, is attached as Exhibit C.

**4.2. 5N Associates submitted such a permit application.**

**4.3. In an unusual step, DES issued a groundwater management permit with monitoring expanded to an area beyond the groundwater management zone it had required.**

According to the permit, 5N Associates is required to monitor wells on property of landowners TriState and RdF. The former has clear liability, and the latter has not done the work directed by the Department four (4) months ago to further investigate its own site. There is no reason why 5N Associates should do it for them.

**5. Additional facts are required before responsibility can be determined.**

**5.1. Additional work by TriState is recommended by 5N Associates environmental consultant, HTE (See letter from HTE to DES re Off-Site Sampling and Analysis Considerations, dated April 6, 2004, attached as Exhibit D.)**

This work is necessary in order to assess the potential sources of contamination and to determine the responsibility for groundwater impacts. 5N Associates is, nonetheless going to proceed with the work in the groundwater management zone. (See letter from HTE to DES, re. Work Scope for Additional On-Site Investigations, dated April 6, 2004, attached as Exhibit E.)

**Conclusion**

The Department has erred in the following respects:

1. It not only unilaterally expanded the scope of the permit applied for, contrary to the law, but did so after requesting the owner to submit an application of a more limited scope.
2. Its permit required monitoring and sampling outside the groundwater management zone although the Department has no authority to require such activities.
3. The Permit erroneously failed to acknowledge or protect the right of 5N Associates with respect to any work beyond what it proposed in its application for further hydrogeologic studies and/or remedial measures. (Paragraph 8 of the Standard Permit Conditions). The Department has acknowledged this right of the applicant in prior communications. It simply failed to include it in the Permit as it said it intended to do.



4. The Permit requires a revised remedial action plan in paragraph 10 of the Standard permit Conditions, even though the record is clear that DES has not required or approved a remedial action plan. This provision should be reformed.

**Request for Relief**

WHEREFORE, the 5N Associates respectfully requests that the Waste Management Council, pursuant to its authority under RSA 21-O:9,V and RSA 21-O:14:

A. Determine that the DES permit conditions are arbitrary and capricious in that they are without basis in law, as stated above, and do not recognize the legal rights of the permittee;

B. Determine that the permit must be modified in accord with the red-lined changes attached as Exhibit F;

C. Direct DES to make the red-lined modifications to the permit within 30 days of this decision; and

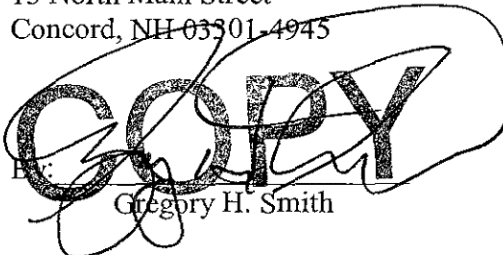
D. Order such other relief as is just and proper.

Respectfully submitted,

5N ASSOCIATES

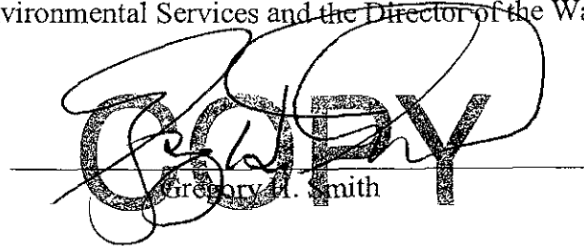
By Its Attorneys,

McLANE, GRAF, RAULERSON & MIDDLETON,  
Professional Association  
15 North Main Street  
Concord, NH 03301-4945

A large, bold, black 'COPY' stamp is oriented diagonally across the bottom right of the page. Overlaid on this stamp is a handwritten signature in black ink, which appears to read 'Gregory H. Smith'. The signature is written in a cursive, flowing style.

**CERTIFICATE OF SERVICE**

I hereby certify that I have on this 6th day of April, 2004 delivered an original and 20 copies of the foregoing Notice of Appeal to the New Hampshire Department of Environmental Services Waste Management Council, and have provided a copy to the Commissioner of the Department of Environmental Services and the Director of the Waste Management Department.

A large, bold, black 'COPY' stamp is oriented vertically. Overlaid on the stamp is a handwritten signature in black ink, which appears to read 'Gregory A. Smith'. The signature is written in a cursive style with a large loop at the end.

## **EXHIBIT A**

March 8, 2004

Mr. Peter Nash  
Five-N-Associates  
40 Temple Street  
Nashua, NH03060

**SUBJECT: HUDSON – Computer Optics Site, 120 Derry Road, Groundwater Management Permit (DES # 198805019)**

Dear Mr. Nash:

Please find enclosed Groundwater Management Permit Number GWP- 198805019-H-001, approved by the Department of Environmental Services (Department). This permit is issued for a period of 5 years to monitor the effects of past discharges of chlorinated volatile organic compounds (CVOCs).

All annual monitoring summaries and all required sampling results must be submitted to the Groundwater Management Permits Coordinator at the address above. All correspondence shall contain a cover letter that clearly shows the Department identification number for the site (DES #198805019). **Please note that upon issuance of this permit, it is only necessary to submit monitoring results to the "Groundwater Management Permits Coordinator" and not to my attention.**

Also, please note that Condition #9 requires the permit holder to record notice of the permit, within 60 days of issuance, in the registry of deeds for the chain of title for the lot(s) within the Groundwater Management Zone. A copy of the recorded notice shall be submitted to the Department within 30 days of recordation. Special Conditions 12, 13, and 14 require completion of the supplemental site investigation work requested in the Department's December 12, 2003 letter.

Should you have any questions, please contact me at (603) 271-2987.

Sincerely,

H. Keith DuBois, P.G.  
Waste Management Division

Gwlib on 'Des1'/permit/manage/#198805019 pmt.doc  
Enclosure  
cc: Charles E. Teale, P.E. – HTE Northeast, Inc.  
Hudson Health Officer  
File 198805019



The  
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES  
hereby issues  
GROUNDWATER MANAGEMENT PERMIT NO. GWP-198805019-H-001  
to the permittee  
FIVE-N-ASSOCIATES  
to monitor the past discharge of  
Chlorinated Volatile Organic Compounds  
at  
COMPUTER OPTICS SITE  
(120 Derry Road)  
in HUDSON, N.H.  
via the groundwater monitoring system comprised of  
23 monitoring wells and one supply well  
as depicted on the Site Plan entitled  
Site Plan  
dated February 8, 2004, prepared by HTE Northeast, Inc.

TO: PETER NASH  
FIVE-N-ASSOCIATES  
40 TEMPLE STREET  
NASHUA, NH 03060

Date of Issuance: March 8, 2004  
Date of Expiration: March 7, 2009

Pursuant to authority in N.H. RSA 485-C:6-a, the New Hampshire Department of Environmental Services (Department), hereby grants this permit to monitor past discharges to the groundwater at the above described location for five years subject to the following conditions:

(continued)

STANDARD MANAGEMENT PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by the Department (N.H. Admin. Rules Env-Wm 1403) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the referenced site plan.
2. The permittee shall not cause groundwater degradation that results in a violation of surface water quality standards (N.H. Admin. Rules Env-Ws 1700) in any surface water body.
3. The permittee shall allow any authorized staff of the Department, or its agent, to enter the property covered by this permit for the purpose of collecting information, examining records, collecting samples, or undertaking other action associated with this permit.
4. The permittee shall apply for the renewal of this permit 90 days prior to its expiration date.
5. This permit is transferable only upon written request to, and approval of, the Department. Compliance with the existing Permit shall be established prior to ownership transfer. Transfer requests shall include the name and address of the person to whom the permit transfer is requested, signature of the current and future permittee, and a summary of all monitoring results to date.
6. The Department reserves the right, under N.H. Admin. Rules Env-Wm 1403, to require additional hydrogeologic studies and/or remedial measures if the Department receives information indicating the need for such work. In reserving this right, the Department does not intend to limit in any way the permittee's right to dispute the need for such studies and/or remedial measures.
7. The permittee shall maintain a water quality monitoring program and submit monitoring results to the Department's Groundwater Management Permits Coordinator no later than 45 days after sampling. Samples shall be taken from on-site monitoring wells and private supply wells as shown and labeled on the referenced site plan and listed on the following table in accordance with the schedule outlined herein:

<u>Monitoring Locations</u>	<u>Sampling Frequency</u>	<u>Parameters</u>
HE-1, HE-2, HE-3, HE-4, HE-5, HE-6, HE-7, HE-9, HE-11, HE-12, HE-13, HE-14, HTE-16, HTE-17, HTE-18, HTE-19, HTE-21, HTE-22, MW-1, MW-A, MW-B, MW-C and MW-D	April, August, and November of each year.	Static groundwater elevations and NHDES Hazardous Waste Remediation Short List of Analytes for Volatile Organics.
Private Supply Well PWW	April, August, and November of each year	NHDES Petroleum and Hazardous Waste Remediation Full List of Analytes for Volatile Organics.

Samples shall be obtained using sampling procedures and protocol described in "Practical Guide for Ground-Water Sampling," USEPA current edition, and "RCRA Ground-Water Monitoring: Draft Technical Guidance," USEPA current edition. Samples shall be analyzed by a laboratory certified by the U.S. Environmental Protection Agency or the New Hampshire Department of Environmental Services.

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Summaries of water quality shall be submitted annually to the Department's Waste Management Division, attention Groundwater Management Permits Coordinator, in the month of January, using a format acceptable to the Department. The Annual Report shall include:

- A tabular summary of all monitoring results to date with comparison to the Department's GW-1 and GW-2 groundwater standards;
  - Plots of contaminant concentrations versus time for each contaminated monitoring well using uniform scales for both axes of the plots;
  - Plots of molar units of each contaminant versus time for each contaminated monitoring well using uniform scales for both axes of the plots;
  - Comparison of molar units for parent and daughter products at each monitoring well location;
  - An assessment of trends in the data;
  - An evaluation of the performance of the remedial action plan; and
  - Any recommendations for modifications to the remedial action plan (including recommendations to increase or decrease the extent of the monitoring well network).
8. Issuance of this permit is based on the Groundwater Management Permit Application dated February 19, 2004 and the historical documents found in the Department file DES #198805019. The Department may require additional hydrogeologic studies and/or remedial measures if invalid or inaccurate data are submitted.
9. Within 60 days of the date of Department approval of this Groundwater Management Permit, the permit holder shall record notice of the permit in the registry of deeds in the chain of title for the **lots** within the Groundwater Management Zone. **This recordation requires that the registry be provided with book and page numbers for the deed of each lot encumbered by this permit. Portions of State/Town/City roadways and associated right-of-way properties within the Groundwater Management Zone do not require recordation.** A copy of the recorded notice shall be submitted to the Department within 30 days of recordation.
10. Within 30 days of discovery of a violation of an ambient groundwater quality standard at or outside the Groundwater Management Zone boundary, the permittee shall notify the Department in writing. Within 60 days of discovery, the permittee shall submit a work scope for development of a revised remedial action plan, including a schedule of milestones, to the Department for approval. The Department shall approve the revised remedial action plan if compliance with Env-Wm 1403.08 has been demonstrated.

SPECIAL CONDITIONS FOR THIS PERMIT

11. Recorded property within the Groundwater Management Zone shall include the lots as listed and described in the following table:

<b>Tax Map/ Lot #</b>	<b>Property Address</b>	<b>Owner Name and Address</b>	<b>Deed Reference (Book/Page)</b>
Map 156 Lot 15	120 Derry Road Hudson, NH	Five-N-Associates 40 Temple Street Nashua, NH 03060	BK 6045 PG 844
Map 156	120 Derry Road Hudson, NH	Five-N-Associates 40 Temple Street Nashua, NH	BK 5072 PG 1309

12. The Lot numbers for all properties shown on Figures 2 and 3 of the permit application package did not agree with the Lot numbers shown on Figure 4 (Groundwater Management Zone). Figures 2 and 3 of the permit application package shall be revised in accordance with Figure 4 and copies of the revised figures shall be submitted to the Department by June 15, 2004 with the April 2004 Groundwater Monitoring Data Submittal.
13. Department inspection of the site in April 1981 indicated TCE sludge from a recycling still was disposed of in a dumpster located west of the site building. A site plan showing the locations of all current and former on-site storm drains and the associated discharge piping shall be submitted to the Department by June 15, 2004 with the April 2004 Groundwater Monitoring Data Submittal.
14. The full thickness of sediment present in any site storm drains located to the west and south of the site building shall be sampled and headspace screened for volatile organic compounds. Representative sediment samples yielding field headspace (photoionization detector) readings above the ambient background atmospheric reading shall be analyzed for the Department's Hazardous Waste Short List of Analytes for Volatile Organics (CVOC short list). A minimum of one sediment sample from each storm drain shall be analyzed for the CVOC short list. The storm drain sediment analytical data shall be submitted to the Department by June 15, 2004 with the April 2004 Groundwater Monitoring Data Submittal.
15. Unsaturated zone soil samples at several locations immediately beneath the two site leach fields and samples of the sludge in both site leach fields shall be obtained in April 2004. The leach field soil and sludge samples shall be analyzed for the CVOC short list and the analytical data shall be submitted to the Department by June 15, 2004 with the April 2004 Groundwater Monitoring Data Submittal.

(continued)

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16. The source of dissolved CVOCs detected in the shallow and deep overburden groundwater at the downgradient Tri State Mechanical and RdF sites has not been fully assessed. Therefore, a Department opinion regarding who should be responsible for monitoring groundwater quality at the Tri State Mechanical and RdF sites has not been reached. As requested in the Department's December 12, 2003 correspondence, the permittee shall conduct a comprehensive groundwater monitoring round to aid in assessing the source(s) of dissolved chlorinated volatile organic compounds (CVOCs) detected at the Computer Optics site and the downgradient Tri State Mechanical and RdF sites. The comprehensive monitoring round shall be conducted in conjunction with the April 2004 permit monitoring round. Groundwater samples shall be obtained from all existing monitoring wells on Lots 9, 10, 11, 12, 13, 14, 15, and 16 and downgradient monitoring wells HTE-24S and HTE-24D and the groundwater samples shall be analyzed for the CVOC short list. A consistent sampling methodology shall be used at all monitoring well locations. Surface water samples shall also be obtained at surface water sampling locations SW-1, SW-2, and SW-3 as part of the comprehensive monitoring round. The surface water samples shall also be analyzed for the CVOC short list. The surface water analytical results shall be compared to the Department's Water Quality Criteria for Toxic Substances in accordance with Env-Ws 1700 "Surface Water Regulations".

A combined April 2004 Groundwater Monitoring Data submittal and comprehensive groundwater monitoring report (report) shall be submitted to the Department by no later than June 30, 2004.

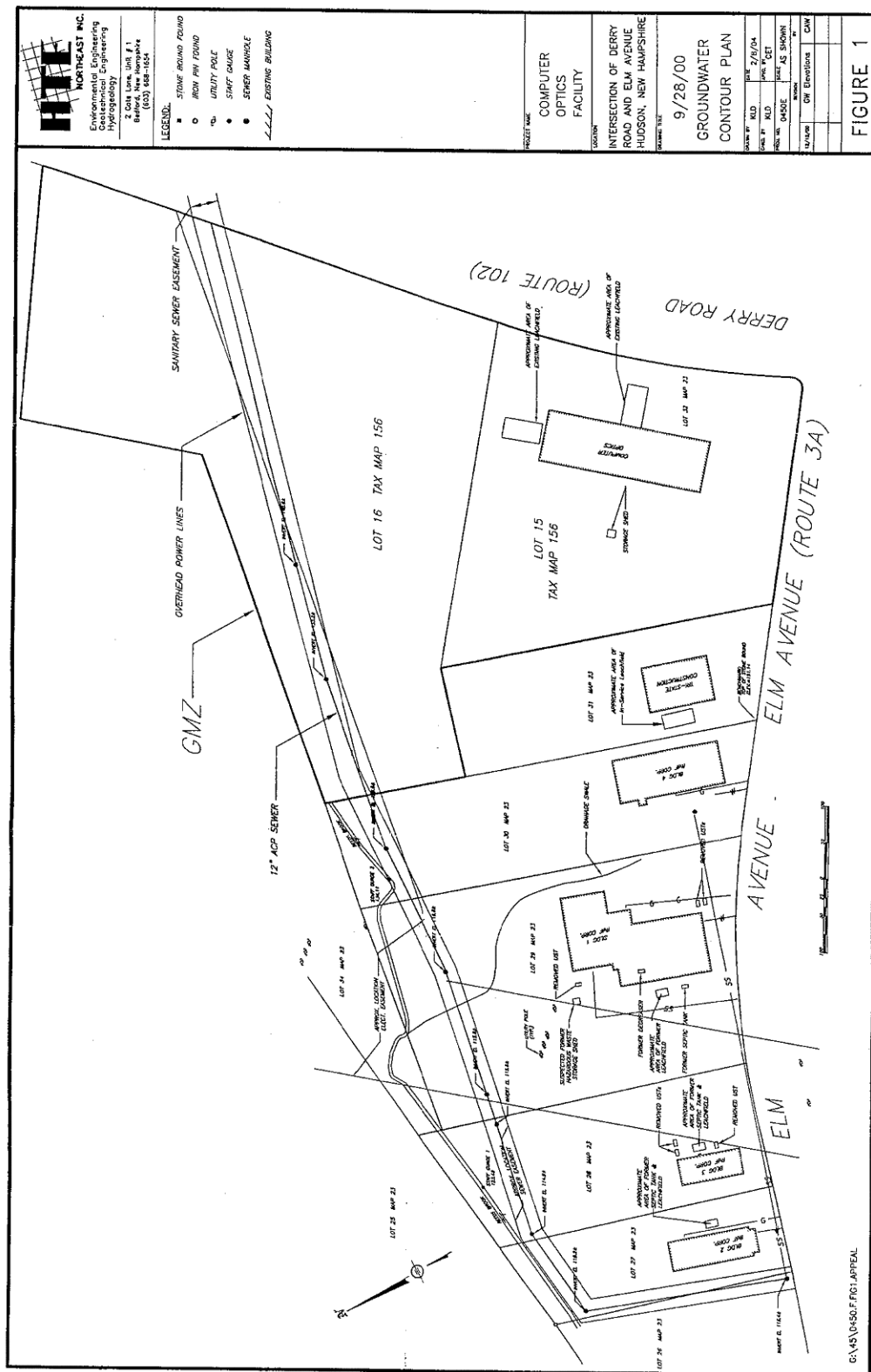
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Carl W. Baxter, P.E.  
Administrator, Hazardous Waste Remediation Bureau  
Waste Management Division

Under RSA 21-0:14 and 21-0:9-V, any person aggrieved by any terms or conditions of this permit may appeal to the Waste Management Council in accordance with RSA 541-A and N.H. Admin. Rules, Env-WMC 200. Such appeal must be made to the Council within 30 days and must be addressed to the Chairman, Waste Management Council, 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.

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## **EXHIBIT B**

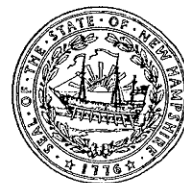


## **EXHIBIT C**

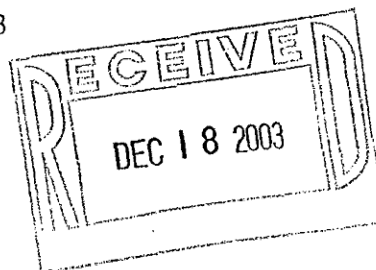


State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095  
(603) 271-3644 FAX (603) 271-2181



December 12, 2003



Mr. Charles E. Teale, P.E.  
HTE Northeast, Inc.  
2 Cote Lane, Suite 1  
Bedford, New Hampshire 03110

**SUBJECT: HUDSON – Computer Optics Site, 120 Derry Road: HTE Northeast, Inc.**  
Response to Request for Groundwater Management Permit Application Dated  
November 20, 2003 (DES #198805019)

Dear Mr. Teale:

The New Hampshire Department of Environmental Services (Department) has reviewed a letter prepared by HTE Northeast, Inc. (HTE) dated November 20, 2003. The letter was prepared in response to the Department's repeated requests for submittal of a Groundwater Management Permit (permit) application for the Computer Graphics Site (site) located at 120 Derry Road in Hudson, New Hampshire. The Department requested submittal of a permit application on May 17, 2002, July 9, 2003, and August 9, 2003. HTE's response letter identified several potential downgradient sources for a portion of the observed chlorinated volatile organic compound (CVOC) contamination in the site area groundwater and recommended conducting an additional comprehensive groundwater monitoring round prior to preparation of the permit application. Review of the site file indicated that previous Department requests for site investigation work have been met with similar recommendations to postpone work pending the completion of additional comprehensive groundwater monitoring rounds. The Department does not approve any further delay in submittal of the repeatedly requested permit application. However, based on HTE's comments regarding potential downgradient contributing CVOC contamination sources, the Department is amenable to limitation of the initial permit Groundwater Management Zone (GMZ) to the properties identified as Lots 32 and 32-1 on Hudson Tax Map 23. These lots comprise the site occupied by Computer Optics and the northeasterly abutting property. The permit application should include tri-annual monitoring of all groundwater monitoring wells located on Lots 32 and 32-1 for the Department's Hazardous Waste Remediation Short List of Analytes for Volatile Organic Compounds (HW Short List of VOCs). The permit application should be submitted to the Department before February 15, 2004.

The Department concurs that an additional comprehensive round of groundwater monitoring is required prior to establishing responsibility for monitoring the CVOC groundwater contamination detected at the Tri-State Mechanical Property and the RdF Properties. The Department requests completion of one comprehensive groundwater monitoring round in May 2004. The comprehensive groundwater monitoring round should include all existing groundwater monitoring wells on Lots 27, 28, 29, 30, 31, 32, and 32-1 and downgradient monitoring wells HTE-24S and HTE-24D as well as surface water sampling locations SW-1,

SW-2, and SW-3. The groundwater and surface water samples should be analyzed for the Department's HW Short List of VOCs. The surface water analytical results should be compared to the Department's Water Quality Criteria for Toxic Substances in accordance with Env-Ws 1700 "Surface Water Regulations". Review of the site file indicated that previously obtained groundwater samples from the Site wells (Lots 32 and 32-1) were collected with disposable bailers and groundwater samples from the downgradient off-site monitoring wells were collected using inertial bailers (WATERRA devices).

Use of different sampling methodologies for the site and downgradient properties can lead to analytical results that are not directly comparable. Use of inertial sampling devices can agitate well bottom sediments and cause VOC losses due to volatilization. Furthermore, bailer samples are typically collected from the shallow portion of the water column in the monitoring well. Conversely, inertial sampling devices typically collect samples within the lower portion of the well water column. The Department requests collection of all future on-site and off-site groundwater samples via EPA-approved low-flow sampling methods. The intake level of the dedicated tubing in each monitoring well relative to the bottom of the monitoring wells must be consistent throughout the monitoring well network.

A comprehensive groundwater monitoring report should be submitted to the Department before June 30, 2004. The comprehensive groundwater monitoring report should include:

- A historical groundwater quality summary table;
- Contaminant degradation curves for all monitoring wells in which CVOCs are detected at concentrations above the Ambient Groundwater Quality Standards (AGQS);
- Estimates of the time required to meet AGQS at each contaminated monitoring well based on the contamination degradation curves;
- An assessment of the potential for preferential contaminant migration within the identified sewer easement;
- An assessment of the source or sources of the on-site groundwater contamination;
- A detailed summary of all site investigation work conducted to date on all of the impacted properties;
- A detailed summary of all soil and groundwater quality data collected to date for all of the impacted properties;
- A revised site conceptual model; and
- A re-assessment of the limits of the permit GMZ.

The Department will render a decision regarding potential expansion of the GMZ to downgradient properties following review of the groundwater monitoring report, site investigation work currently being conducted by Tri-State Mechanical, and available information for the RdF property.

The Department's responses to specific comments provided in HTE's November 20, 2003 correspondence are summarized below.

### **COMMENTS**

1. **HTE Comment #3:** HTE stated that the location and type of CVOC release on the Site have not been fully characterized. HTE's comment only addressed the detection of trichloroethylene (TCE). However, tetrachloroethene (PCE) was detected above the AGQS in site monitoring well HE-12 in March 1990, April 1990, July 1999, and September 2000. TCE is a degreasing solvent but is also a biodegradation product of PCE. HTE concluded that the apparent TCE release(s) likely occurred prior to 1986 and were most likely associated with the former hazardous waste storage shed. Department review of the site file revealed a copy of hazardous waste manifest MA 279511 for two 55-gallon drums containing liquids consisting of TCE and methylene chloride. Therefore, TCE and other VOCs were present at the site after 1986. Department inspection of the site in April 1981 indicated TCE sludge from a recycling still was disposed of in a dumpster located west of the site building. Please provide the Department with a site plan showing the locations of all current and former on-site storm drains and the associated discharge piping. The Department requests immediate sampling of the full thickness of sediment present in any site storm drains located to the west and south of the site building. The sediment samples should be analyzed for the Department's Hazardous Waste Short List for VOCs. The storm drain location and sediment analytical data should be submitted to the Department with the permit application before February 15, 2004.

Please submit a detailed work scope for assessment of all potential on-site sources of CVOC contamination that HTE concludes have not been adequately addressed. The work scope should be submitted to the Department with the permit application before February 15, 2004.

2. **HTE Comment #4:** HTE stated that groundwater monitoring wells HTE-21 and HTE-22 were installed at the bedrock surface to assess the site leach fields as potential contamination sources and that the groundwater analytical data indicate the leach fields are not likely sources of the detected groundwater contamination. The Department records do not contain groundwater analytical data for monitoring wells HTE-21 and HTE-22. Therefore the Department concludes that HTE's Comment #4 is unsubstantiated. Please submit the analytical data for these monitoring wells with the permit application before February 15, 2004.

Groundwater monitoring well HTE-22 is located upgradient of the large leach field. Therefore, groundwater quality data from these monitoring wells does not necessarily eliminate the leach field as a potential contamination source. The Department requests sampling and analysis of unsaturated zone soils at several locations immediately beneath the two site leach fields. The soil and sludge samples should be analyzed for the HW Short List of VOCs and the analytical data should be provided with the June 2004 groundwater monitoring report.

3. **HTE Comment #6:** HTE stated that potential contamination sources on the RdF Properties have not been assessed. Specifically, HTE cites the former degreasing unit and former hazardous waste storage shed associated with RdF Building #1, six former underground storage tanks (USTs) and the former leach fields on the RdF properties as potential contamination sources. The Department issued a Certificate of No Further Action (CNFA) to RdF Corporation on November 30, 2001 based on the conclusion that the detected groundwater CVOC contamination was likely due to migration from an off-site upgradient source. The Department has completed a secondary review of the RdF Site File and has requested collection and analysis of unsaturated zone soil samples from beneath all previously existing RdF leach fields and septic tanks. Although the Department is confident in its previous conclusion that the dissolved CVOC groundwater contamination was not due to a release at the RdF facility, the Department will delay a determination regarding the party or parties obligated to monitor groundwater at the RdF and Tri-State sites until the additional requested information and the June 2004 Groundwater Monitoring Report is received and reviewed.
4. **HTE Comment #7:** HTE indicated 1,1-dichloroethene (1,1-DCE) has only been detected in RdF Property monitoring wells MW-3D, MW-4D, and MW-5D and not in any of the Computer Optics Site monitoring wells. 1,1-DCE is a degradation product of 1,1,1-Trichloroethane (TCA) and is also a commercially available solvent. There is no documented evidence of 1,1-DCE usage at the RdF facility. 1,1,1-TCA was detected in RdF Property monitoring wells DW-6 and DW-7 at low concentrations. Monitoring wells DW-6 and DW-7 are located upgradient of the monitoring wells where 1,1-DCE was previously detected at concentrations above the AGQS. However, 1,1,1-TCA was also previously detected in Computer Optics monitoring wells HE-8, HE-11, HE-12, HE-13, HE-14, and HE-15. Therefore, detection of 1,1-DCE at low concentrations in the deep RdF monitoring wells does not necessarily eliminate the Computer Optics Site as the source of the detected 1,1-DCE. To the contrary, detection of 1,1,1-TCA and 1,1-DCE only in the deeper RdF monitoring wells is consistent with an off-site upgradient source. The Department will re-evaluate the significance of the 1,1-DCE detections in the RdF Property monitoring wells following receipt of the June 2004 Groundwater Monitoring Report.
5. **HTE Comment #8:** HTE stated the detection of chromium in RdF monitoring well MW-3D and the absence of chromium in the Computer Optics monitoring wells indicates a separate release on the RdF Property. The Department disagrees with HTE's interpretation. Department review of the analytical data indicated chromium was only



detected in monitoring well MW-3D at a concentration of 27 µg/L relative to the AGQS of 100 µg/L. The chain of custody form submitted with the analytical data indicates that the groundwater sample collected from monitoring well MW-3D was not filtered prior to preservation. Furthermore, the groundwater sample from monitoring well MW-3D was obtained using an inertial bailer device which typically results in agitation of well bottom sediments. The Department concludes that the total chromium detection in monitoring well MW-3D is most likely indicative of the mineralogy of the soil deposit around the well screen and not indicative of a release of chromium at the RdF Property.

6. **HTE Comment #9:** HTE stated soil or groundwater samples have not been obtained from the Tri-State Mechanical (Tri-State) Property. HTE further indicated that there may be contributing sources of groundwater contamination on the Tri-State Property. The Department recently received a Phase I Environmental Site Assessment Report for the Tri-State Property. Three groundwater monitoring wells were installed at the property. One of the monitoring wells was installed on the eastern (upgradient) side of the building in the general vicinity of the loading dock. The remaining monitoring wells were installed on the northern side of the building. Three shallow soil borings were also conducted in the general vicinity of the leach field. CVOCs were not detected in soil samples obtained from the leach field perimeter borings at concentrations above the Department's Risk Characterization and Management Policy (RCMP) S-1 soil standards. No VOCs were detected in the upgradient shallow Tri-State monitoring well MW-1 at concentrations above the AGQS. The CVOCs TCE (120 µg/L), PCE (1.8 µg/L), 1,1-dichloroethane (1.0 µg/L) and cis-1,2-dichloroethene (54 µg/L) were detected in Tri-State monitoring well MW-3. Monitoring well MW-3 is located within the general interpreted limits of the dissolved CVOC plume migrating on to the property from an off-site source. Tri-State monitoring well MW-2 was dry during the sampling event. The Department has requested collection and analysis of additional soil sample from immediately beneath the Tri-State leach field and immediately adjacent to the loading dock. The Department will render an opinion regarding potential Tri-State sources for the detected groundwater contamination following receipt of the requested soil analyses and the June 2004 Groundwater Monitoring Report.
7. **HTE Comment #11:** HTE stated "the extent of TCE contamination to the north and northwest of the site is not likely to extend beyond Reeds Brook". Please provide the basis for this interpretation. The groundwater analytical data indicate the presence of a downward dissolved CVOC plume. The Department has observed deep dissolved CVOC plumes at other sites which have migrated beneath abutting streams and rivers. Installation of additional monitoring wells on the northerly side of Reeds Brook may be required to confirm HTE's conclusion.
8. HTE Comments #12 and #13 were redundant and have been addressed above.
9. HTE Comment #14: This comment regarding potential contributing contamination sources was addressed above. The Department will re-evaluate the need for additional site investigation and/or groundwater monitoring by others following receipt of the June

HTE Northeast, Inc.  
DES # 198805019  
December 12, 2003  
Page 6 of 6

2004 Groundwater Monitoring Report and other information requested from Tri-State and RdF. The Department may expand the permit GMZ or require others to apply for groundwater management permits following review of the June 2004 Groundwater Monitoring Round, the additional RdF site information, and the supplemental soil analyses requested of Tri-State.

Please be advised that the Computer Optics Site, RdF Site, and the Tri-State Site have been permanently assigned to one project manager to facilitate consistent data review for all three sites.

Please do not hesitate to contact me at 603-271-2987 or [hdubois@des.state.nh.us](mailto:hdubois@des.state.nh.us), if you have any questions or comments regarding this letter.

Sincerely,  
A large, stylized, and somewhat faded 'COPY' watermark is overlaid on the signature.

H. Keith DuBois, P.G.  
Waste Management Division

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cc: Michael Wimsatt – WMD (via e-mail)  
David Bowen – WMD (via e-mail)  
Peter Nash – 5 N Associates.  
Hudson Health Officer  
HWRB File 198805019

## **EXHIBIT D**



NORTHEAST INC

Environmental Engineering  
Geotechnical Engineering  
Water Resources  
Hydrogeology

March 23, 2004  
Project No. 0450F

Mr. H. Keith DuBois, PG  
State of New Hampshire  
Department of Environmental Services  
Waste Management Division  
6 Hazen Drive, PO Box 95  
Concord, New Hampshire 03302-0095

RE: Off-Site Sampling and Analysis Considerations  
Computer Optics Facility  
120 Derry Road  
Hudson, New Hampshire  
DES #198805019

Dear Mr. DuBois:

HTE Northeast, Inc. (HTE) has been asked by 5N Associates, owner of the 120 Derry Road property, to prepare this technical Groundwater Management Permit (GWP 198805019-H-001) issued by the NH-DES on March 8, 2004.

The groundwater permit application prepared by HTE for 5N Associates was developed based on your request to include triannual sampling and analysis of all of the groundwater monitoring wells on Lots 32 and 32-1 (old lot designations). The aforementioned GMP, as issued, included this requirement as well as several other on-site investigatory tasks and, in addition, off-site sampling and analysis of all of the existing monitoring wells at the adjacent Tri State General & Mechanical and RdF properties. HTE has reviewed the status of NH-DES requested investigations on these two off-site properties and offers the following comments on this additional work at the Tri State General & Mechanical (TriState) and RdF properties.

**Tri State General & Mechanical Corp. Property**

A Phase I Environmental Site Assessment Report was prepared for this property by MyKroWaters, Inc. in apparent response to the former NH-DES requests for a Site Characterization Report and Site Investigation, dated January 26, 2001 and June 25, 2003, respectively. NH-DES review of the Phase I Environmental Site Assessment Report, per letter dated October 31, 2003, provided comments regarding "Inadequate Placement of Groundwater Monitoring Wells", "Analytical Program Quality Assurance/Quality Control Concerns", "Inadequate Soil Sampling and Analysis", "Report Stamping

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2 Cote Lane, Suite 1  
Bedford, NH 03110  
Telephone: (603) 668-1654 • Fax: (603) 668-0608



NORTHEAST INC

**Proposed On-Site Work Scope for Additional Investigations**  
**120 Derry Road**  
**Hudson, New Hampshire**

**March 23, 2004**  
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**Page No. 2**

Requirements” and “Required Actions”. The NH-DES required 1) installation of two additional groundwater monitoring wells immediately downgradient of the garage area and leach field, 2) collection and analysis of soil samples from beneath the leach field, 3) collection and analysis of a sediment sample and water sample from the septic tank, 4) collection and analysis of an additional round of groundwater samples from all monitoring wells, and 5) submittal of a supplemental site investigation report.

HTE has reviewed the Supplemental Site Investigation Report dated January 20, 2004 prepared by MyKroWaters, Inc. for the TriState property. This report indicates that a low level of trichloroethene (TCE) at a concentration of 2.5 parts per billion (ppb) was detected in the TriState septic tank, and 52 ppb of TCE in the groundwater from TriState monitoring well MW-3. TCE was not reported above detection limits in the soil samples obtained from the TriState leachfield or garage area, nor was it detected in the single groundwater sample obtained from the leachfield area or from TriState monitoring well MW-1, which is immediately upgradient relative to the septic system. The absence of TCE in MW-1 and the presence of TCE in the septic tank is indicative of a TCE release to the TriState subsurface disposal system.

It is noted that the Site Plan included in the aforementioned report is not to scale nor are there any ground surface elevations, top of well elevations or groundwater elevation contours shown on the plan that are generally required to be included in Site Investigation Reports pursuant to Env-Wm 1403.07. In the absence of these required data, actual well locations and groundwater flow directions on the Tri State General & Mechanical property cannot be referenced to existing data previously developed on the Computer Optics property. Specifically, without surveyed locations of wells and sampling points, their juxtaposition relative to nearby wells at the Computer Optics property remains unknown. Also, in the absence of groundwater flow directions or development of contour intervals, it is not known which easterly Computer Optics wells may be upgradient of the Tri State General & Mechanical sampling points. It is suggested that this data be developed by Tri State General & Mechanical in order for a more complete understanding of the site groundwater flow regime in order to assess what impacts, if any, may be attributable to the Computer Optics property. Once these data have been completed, responsibility for sampling and analysis of the wells located downgradient of the Computer Optics property can be determined.

#### **RdF Property**

HTE has reviewed the NH-DES letter dated December 12, 2003 to RdF Corp. which requested that RdF 1) obtain soil samples from below each of the former site septic tanks and current and former site leach fields, 2) prepare a summary of all current and former site underground storage tanks, and 3) prepare a description of any floor drains or sinks within the site buildings. It is our understanding that these



NORTHEAST INC

**Proposed On-Site Work Scope for Additional Investigations**  
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**March 23, 2004**  
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requested data have not yet been submitted to the NH-DES.

Until these data are developed and made available for review, groundwater impacts by RdF operations relative to upgradient Computer Optics operations cannot be readily discerned, at least within southern portions of the RdF property.

In summary, the NH-DES request for 5N Associates to perform a round of groundwater sampling and analysis at the Tri State General & Mechanical and RdF properties should only be considered once that data indicated above has been developed by the respective property owners. This would allow 5N Associates to further consider what impacts, if any, the Computer Optics facility may have had on these downgradient properties and to further determine which off-site wells should more appropriately be considered for long term monitoring.

Please feel free to contact the undersigned if you have any questions. 5N Associates is prepared to perform the GMP required tasks on their properties at this time. A separate work scope has been prepared for the GMP on-site requested additional investigations and is being submitted to you under separate cover.

Very truly yours,

HTE NORTHEAST, INC  
*Charles E. Teale*  
**COPY**

Charles E. Teale, PE, LSP, LEP  
Principal

cc: Mr. Q. Peter Nash/5N Associates  
Mr. Gregory Smith, Esq./McLane, Graf Raulerson & Middleton, PA

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## **EXHIBIT E**



NORTHEAST INC.

Environmental Engineering  
Geotechnical Engineering  
Water Resources  
Hydrogeology

March 23, 2004  
Project No. 0450F

Mr. H. Keith DuBois, PG  
State of New Hampshire  
Department of Environmental Services  
Waste Management Division  
6 Hazen Drive, PO Box 95  
Concord, New Hampshire 03302-0095

RE: Work Scope for Additional On-Site Investigations  
Computer Optics Facility  
120 Derry Road  
Hudson, New Hampshire  
DES #198805019

Dear Mr. DuBois:

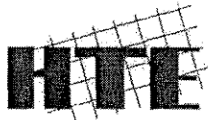
On behalf of 5N Associates, owner of the 120 Derry Road property, HTE Northeast, Inc. (HTE) has prepared this Work Scope for performance of the additional on-site investigations requested by Special Conditions 12 through 16 as contained in the March 8, 2004 issued (Groundwater Management Permit GWP 198805019-H-001). In accordance with 5N Associates authorization, the following tasks are proposed to be performed at this time:

**Special Condition 12:** This condition requires that certain corrections be made to the lot designations to render all groundwater management permit drawings to reflect the current lot and tax map designations. These edits will be made and will be included with the April 2004 groundwater monitoring data submittal.

**Special Condition 13:** This condition requires that all current and former on-site storm drains and associated discharge piping be shown on the site plan. Please be advised that all sheet flow off of the paved areas of the site is to the pavement perimeter onto adjacent grass areas. There are no catch basins nor have there been any catch basins on the site, including any grass area yard drains. Accordingly, no work is required under Special Condition 13.

**Special Condition 14:** This condition requires that all current and former on-site storm drains be sampled, headspace screened and analyzed for volatile organic compounds. As indicated above, There are no catch basins nor have there been any catch basins on the site, including any grass area yard drains. Accordingly, no work is required under Special Condition 14.





NORTHEAST INC

**Proposed On-Site Work Scope for Additional Investigations**  
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**Special Condition 15:** This condition requires that soil samples be obtained from the two on-site leach fields and analyzed for the chlorinated volatile organic compound (CVOC) short list with the data to be submitted with the April 2004 groundwater monitoring data submittal. It is important to note that the leach field located along the east side of the on-site building is easily identifiable due to the wet ground surface and obvious vegetative growth. However, the leaching facility located to the north of the on-site building had been reported to consist of a dry well of only approximate location. Based on this information, HTE proposes to perform the following investigative efforts:

- For the easterly leach field, a track mounted GeoProbe<sup>®</sup> rig will be deployed to advance 3 direct push explorations through the field. Soil samples will be field screened with a photoionization detector (PID) equipped with an 11.3 mv ionization potential lamp. Explorations will be advanced until probe refusal conditions are encountered. No obstruction or rock coring is proposed at this time. One soil sample from each probe will be selected based on field observations (i.e. staining and malodors), PID screening results, and if no overt contamination is observed, the soil sample above refusal level will be obtained for CVOC short list analyses. A location plan will be prepared to document the 'As-Drilled' probe locations along with individual probe logs. Up to three all current and former on-site storm drains be sampled, headspace screened and analyzed for volatile organic compounds.
- With respect to the northerly reported dry well, a backhoe will be deployed to investigate the presence or absence of a dry well. If a dry well is located and the cover can be removed, HTE will obtain a sample of the contained-in liquid and bottom sludge material. These two samples will be analyzed for the CVOC shot list. In the event that the dry well cannot be located, then three GeoProbe<sup>®</sup> direct push investigations will be advanced within the best estimated vicinity of the terminus of the pipe which exits the north side of the building. Soil samples will be obtained in a similar fashion as described above for the easterly leach field.

**Special Condition 16:** This condition requires that all monitoring wells on the RdF and Tri State General & Mechanical properties be sampled including surface water samples from Reeds Brook. As indicated in HTE's letter to you regarding the RdF and Tri State General & Mechanical properties, we believe that 1) surveyed locations and elevations of the Tri State General & Mechanical sampling points and monitoring wells are necessary to be obtained by the property owner with development of a groundwater contour plan, as is usually required by NH-DES requested Site Investigations, and that 2) the NH-DES requested further investigations of the RdF property by its property owner be completed so that 5N Associates can



NORTHEAST INC

**Proposed On-Site Work Scope for Additional Investigations**  
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more fully understand the role of each property owners previous activities as it relates to the area wide TCE situation. Once this data has been developed by the respective property owners, then only those pertinent wells necessary for further monitoring can be considered. In the interim, HTE has been authorized by 5N Associates to sample and analyze all on-site wells as required by Standard Management Permit Condition 7.

HTE, on behalf of 5N Associates, is prepared to perform those on-site GMP tasks delineated above. Please feel free to contact the undersigned if you have any questions.

Very truly yours,

HTE NORTHEAST, INC.  
*Charles E. Teale*  
**COPY**

Charles E. Teale, PE, LSP, LEP  
Principal

cc: Mr. Q. Peter Nash/5N Associates  
Mr. Gregory Smith, Esq./McLane, Graf Raulerson & Middleton, PA

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## **EXHIBIT F**



The  
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES  
hereby issues  
GROUNDWATER MANAGEMENT PERMIT NO. GWP-198805019-H-001  
to the permittee  
FIVE-N-ASSOCIATES  
to monitor the past discharge of  
Chlorinated Volatile Organic Compounds  
at  
COMPUTER OPTICS SITE  
(120 Derry Road)  
in HUDSON, N.H.  
via the groundwater monitoring system comprised of  
23 monitoring wells and one supply well  
as depicted on the Site Plan entitled  
Site Plan  
dated February 8, 2004, prepared by HTE Northeast, Inc.

TO: PETER NASH  
FIVE-N-ASSOCIATES  
40 TEMPLE STREET  
NASHUA, NH 03060

Date of Issuance: March 8, 2004  
Date of Expiration: March 7, 2009

Pursuant to authority in N.H. RSA 485-C:6-a, the New Hampshire Department of Environmental Services (Department), hereby grants this permit to monitor past discharges to the groundwater at the above described location for five years subject to the following conditions:

(continued)

STANDARD MANAGEMENT PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by the Department (N.H. Admin. Rules Env-Wm 1403) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the referenced site plan.
2. The permittee shall not cause groundwater degradation that results in a violation of surface water quality standards (N.H. Admin. Rules Env-Ws 1700) in any surface water body.
3. The permittee shall allow any authorized staff of the Department, or its agent, to enter the property covered by this permit for the purpose of collecting information, examining records, collecting samples, or undertaking other action associated with this permit.
4. The permittee shall apply for the renewal of this permit 90 days prior to its expiration date.
5. This permit is transferable only upon written request to, and approval of, the Department. Compliance with the existing Permit shall be established prior to ownership transfer. Transfer requests shall include the name and address of the person to whom the permit transfer is requested, signature of the current and future permittee, and a summary of all monitoring results to date.
6. The Department reserves the right, under N.H. Admin. Rules Env-Wm 1403, to require additional hydrogeologic studies and/or remedial measures if the Department receives information indicating the need for such work. In reserving this right, the Department does not intend to limit in any way the permittee's right to dispute the need for such studies and/or remedial measures.
7. The permittee shall maintain a water quality monitoring program and submit monitoring results to the Department's Groundwater Management Permits Coordinator no later than 45 days after sampling. Samples shall be taken from on-site monitoring wells and private supply wells as shown and labeled on the referenced site plan and listed on the following table in accordance with the schedule outlined herein:

<u>Monitoring Locations</u>	<u>Sampling Frequency</u>	<u>Parameters</u>
HE-1, HE-2, HE-3, HE-4, HE-5, HE-6, HE-7, HE-9, HE-11, HE-12, HE-13, HE-14, HTE-16, HTE-17, HTE-18, HTE-19, HTE-21, HTE-22, MW-1, MW-A, MW-B, MW-C and MW-D	April, August, and November of each year.	Static groundwater elevations and NHDES Hazardous Waste Remediation Short List of Analytes for Volatile Organics.
Private Supply Well PWW	April, August, and November of each year	NHDES Petroleum and Hazardous Waste Remediation Full List of Analytes for Volatile Organics.

Samples shall be obtained using sampling procedures and protocol described in "Practical Guide for Ground-Water Sampling," USEPA current edition, and "RCRA Ground-Water Monitoring: Draft Technical Guidance," USEPA current edition. Samples shall be analyzed by a laboratory certified by the U.S. Environmental Protection Agency or the New Hampshire Department of Environmental Services.

(continued)

GWP-198805019-H-001

Summaries of water quality shall be submitted annually to the Department's Waste Management Division, attention Groundwater Management Permits Coordinator, in the month of January, using a format acceptable to the Department. The Annual Report shall include:

- A tabular summary of all monitoring results to date with comparison to the Department's GW-1 and GW-2 groundwater standards;
- Plots of contaminant concentrations versus time for each contaminated monitoring well using uniform scales for both axes of the plots;
- Plots of molar units of each contaminant versus time for each contaminated monitoring well using uniform scales for both axes of the plots;
- Comparison of molar units for parent and daughter products at each monitoring well location;
- An assessment of trends in the data;
- An evaluation of the performance of the remedial action plan: and
- Any recommendations for modifications to the remedial action plan (including recommendations to increase or decrease the extent of the monitoring well network).

8. Issuance of this permit is based on the Groundwater Management Permit Application dated February 19, 2004 and the historical documents found in the Department file DES #198805019. The Department may require additional hydrogeologic studies and/or remedial measures if invalid or inaccurate data are submitted. In reserving this right, the Department does not intend to limit in any way the permittee's right to dispute the need for such studies and/or remedial measures.
9. Within 60 days of the date of Department approval of this Groundwater Management Permit, the permit holder shall record notice of the permit in the registry of deeds in the chain of title for the **lots** within the Groundwater Management Zone. **This recordation requires that the registry be provided with book and page numbers for the deed of each lot encumbered by this permit. Portions of State/Town/City roadways and associated right-of-way properties within the Groundwater Management Zone do not require recordation.** A copy of the recorded notice shall be submitted to the Department within 30 days of recordation.
10. Within 30 days of discovery of a violation of an ambient groundwater quality standard at or outside the Groundwater Management Zone boundary, the permittee shall notify the Department in writing. ~~Within 60 days of discovery, the permittee shall submit a work scope for development of a revised remedial action plan, including a schedule of milestones, to the Department for approval. The Department shall approve the revised remedial action plan if compliance with Env Wm 1403.08 has been demonstrated.~~

SPECIAL CONDITIONS FOR THIS PERMIT

11. Recorded property within the Groundwater Management Zone shall include the lots as listed and described in the following table:

<b>Tax Map/ Lot #</b>	<b>Property Address</b>	<b>Owner Name and Address</b>	<b>Deed Reference (Book/Page)</b>
Map 156 Lot 15	120 Derry Road Hudson, NH	Five-N-Associates 40 Temple Street Nashua, NH 03060	BK 6045 PG 844
Map 156	120 Derry Road Hudson, NH	Five-N-Associates 40 Temple Street Nashua, NH	BK 5072 PG 1309

12. The Lot numbers for all properties shown on Figures 2 and 3 of the permit application package did not agree with the Lot numbers shown on Figure 4 (Groundwater Management Zone). Figures 2 and 3 of the permit application package shall be revised in accordance with Figure 4 and copies of the revised figures shall be submitted to the Department by June 15, 2004 with the April 2004 Groundwater Monitoring Data Submittal.
13. Department inspection of the site in April 1981 indicated TCE sludge from a recycling still was disposed of in a dumpster located west of the site building. A site plan showing the locations of all current and former on-site storm drains and the associated discharge piping shall be submitted to the Department by June 15, 2004 with the April 2004 Groundwater Monitoring Data Submittal.
14. The full thickness of sediment present in any site storm drains located to the west and south of the site building shall be sampled and headspace screened for volatile organic compounds. Representative sediment samples yielding field headspace (photoionization detector) readings above the ambient background atmospheric reading shall be analyzed for the Department's Hazardous Waste Short List of Analytes for Volatile Organics (CVOC short list). A minimum of one sediment sample from each storm drain shall be analyzed for the CVOC short list. The storm drain sediment analytical data shall be submitted to the Department by June 15, 2004 with the April 2004 Groundwater Monitoring Data Submittal.
15. Unsaturated zone soil samples at several locations immediately beneath the two site leach fields and samples of the sludge in both site leach fields shall be obtained in April 2004. The leach field soil and sludge samples shall be analyzed for the CVOC short list and the analytical data shall be submitted to the Department by June 15, 2004 with the April 2004 Groundwater Monitoring Data Submittal.

16. The source of dissolved CVOCs detected in the shallow and deep overburden groundwater at the downgradient Tri State Mechanical and RdF sites has not been fully assessed. Therefore, a Department opinion regarding who should be responsible for monitoring groundwater quality at the Tri State Mechanical and RdF sites has not been reached. As requested in the Department's December 12, 2003 correspondence, the permittee shall conduct a comprehensive groundwater monitoring round to aid in assessing the source(s) of dissolved chlorinated volatile organic compounds (CVOCs) detected at the Computer Optics site and the downgradient Tri State Mechanical and RdF sites. The comprehensive monitoring round shall be conducted in conjunction with the April 2004 permit monitoring round. Groundwater samples shall be obtained from all existing monitoring wells on Lots 9, 10, 11, 12, 13, 14, 15, and 16 and downgradient monitoring wells HTE-24S and HTE-24D and the groundwater samples shall be analyzed for the CVOC short list. A consistent sampling methodology shall be used at all monitoring well locations. Surface water samples shall also be obtained at surface water sampling locations SW-1, SW-2, and SW-3 as part of the comprehensive monitoring round. The surface water samples shall also be analyzed for the CVOC short list. The surface water analytical results shall be compared to the Department's Water Quality Criteria for Toxic Substances in accordance with Env-Ws 1700 "Surface Water Regulations".

The combined April 2004 Groundwater Monitoring Data submittal and comprehensive groundwater monitoring report (report) shall be submitted to the Department by no later than June 30, 2004.

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Carl W. Baxter, P.E.  
Administrator, Hazardous Waste Remediation Bureau  
Waste Management Division

Under RSA 21-0:14 and 21-0:9-V, any person aggrieved by any terms or conditions of this permit may appeal to the Waste Management Council in accordance with RSA 541-A and N.H. Admin. Rules, Env-WMC 200. Such appeal must be made to the Council within 30 days and must be addressed to the Chairman, Waste Management Council, 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.